IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent Application of)

INABA et al.)

Art Unit 1794

Application Number: 10/574,496)

Examiner

Filed: April 3, 2006)

Jacobson, Michele Lynn

For: STRETCH-FORMED MULTILAYER CONTAINER
AND PRODUCTION PROCESS FOR THE SAME)

Attorney Docket No. NAGA.0002)

Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

DECLARATION OF NOBORU OHMORI UNDER 37 C.F.R. § 1.132

I, Noboru Ohmori, do hereby declare that:

I. Background

1. I am a citizen of Japan.
2. I graduated from Saitama University (Department of Chemistry, Faculty of Science) in 2001.
3. Since 2001, I have worked for Kureha Corporation. From 2001 until now, I have been a researcher, and have performed research and development concerning technologies of material for packaging.
4. I am one of the named inventors in the above-referenced patent application.
5. I carried out the following experiments:

II. Comparative Experiment 1

6. Polyacrylic acid (PAA) (Aron™ A-10H, manufactured by TOAGOSEI Co., Ltd., 25wt% aqueous solution, number average molecular weight: 150,000) was diluted with distilled water to prepare a 15wt% PAA aqueous solution. Sodium hydroxide (first grade: manufactured by Wako Pure Chemical Industries, Ltd.) was added to the 15wt% PAA aqueous solution and dissolved, to obtain an aqueous solution of a partially neutralized polyacrylic acid having degree of neutralization of 5%. Note that, the amount of sodium hydroxide added was calculated on the basis of the number of moles of carboxyl groups

in the PAA aqueous solution. Next, Sodium phosphinate monohydrate (specialty grade: manufactured by Wako Pure Chemical Industries, Ltd.) was added to the aqueous solution of the partially neutralized polyacrylic acid in the content ratio of the Sodium phosphinate monohydrate being 2 weight parts with respect to 100 weight parts of a solid of PAA. Thereby, the Sodium phosphinate monohydrate addition PAA aqueous solution is prepared.

7. In addition, a 15 wt% aqueous solution of soluble starch (first grade: manufactured by Wako Pure Chemical Industries, Ltd.: hydrolysis product of potato starch with acid.) was prepared.
8. Next, the Sodium phosphinate monohydrate addition PAA aqueous solution and the 15 wt% aqueous solution of soluble starch were mixed together in such a way that the mixing ratio between the Sodium phosphinate monohydrate addition PM aqueous solution and the 15 wt% aqueous solution of soluble starch is 80:20 (mass ratio) . Thus, aqueous mixture (concentration: 15 wt%) was obtained.
9. Subsequently, using a mayer bar and a desk coater (K303PROOFER, manufactured by RK Print-Coat Instruments, Ltd.), the aqueous mixture was applied onto a stretched polyethylene terephthalate sheet (PET; Lumirror S 10, manufactured by TORAY INDUSTRIES, Inc., thickness: 12 μm). Next, moisture was evaporated by use of a dryer to thereby obtain a dried film of 2 μm thickness was produced.
10. Magnesium oxide particules (MgO : manufactured by Wako Pure Chemical Industries, Ltd.) having a particle diameter of 0.01 μm was suspended in ethyl alcohol (specialty grade: manufactured by Wako Pure Chemical Industries, Ltd.), so as to prepare magnesium oxide/ethyl alcohol suspension having a concentration of 57g/L. Next, by use of a mayer bar and a desk coater (K303PROOFER, manufactured by RK Print-Coat Instruments, Ltd.), thus-obtained suspension was applied onto the dried film. Thereby, a precursor of a comparative multilayer sheet which is the MgO-coated dried film supported on the stretched PET film was obtained. Subsequently, the precursor was secured onto cardboard by use of adhesive tape, and heated in a 180°C oven for 15 minutes, to obtain the comparative multilayer sheet.
11. Next, the comparative multilayer sheet thus produced was heated and softened at 90°C for 1 minute, and thereafter, I attempted to vacuum-form the comparative multilayer sheet using a deep drawn type high speed automatic vacuum pack machine (FV - 603 manufactured by Omori Machinery Co., Ltd.), in order to produce a heat stretched

container with a diameter of 100mm and a depth of 10mm in which the PET layer was arranged at the innermost so as to come in contact with material packed in the container. However, the comparative multi layer sheet was not able to stretch. As the result, a heat stretched container was not obtained. Thus, it is found that the comparative multilayer sheet, which was obtained by heating at 180°C for 15 minutes, was not stretchable.

III. Comparative Experiment 2

12. First, a precursor of a comparative multilayer sheet was obtained in the same manner as in Comparative Experiment 1 except that a polypropylene film (CPP; Torayfan ZK93K, manufactured by TORAY ADVANCED FILM Co.Ltd., thickness: 60 μ m) was used instead of the stretched polyethylene terephthalate sheet (PET; Lumirror S 10, manufactured by TORAY INDUSTRIES, Inc., thickness: 12 μ m). Next, the precursor was secured onto cardboard by use of adhesive tape, and heated in a 100°C oven for 60 minutes, to obtain the comparative multilayer sheet.
13. Next, the comparative multilayer sheet thus produced was heated and softened at 90°C for 1 minutes, and thereafter, I attempted to vacuum-form the comparative multilayer sheet using a deep drawn type high speed automatic vacuum pack machine (FV - 603 manufactured by Omori Machinery Co. , Ltd.), in order to produce a heat stretched container with a diameter of 100mm and a depth of 10mm in which the CPP layer was arranged at the innermost so as to come in contact with material packed in the container. However, the MgO-coated dried film in the comparative multilayer sheet cracked by stretching the sheet. From such a result, it is found that the MgO-coated dried film in the comparative multilayer sheet does not have a sufficient stretch property for producing the stretched container.

IV. Oxygen Permeability

14. Note that, the oxygen permeability of such a cracked comparative multilayer sheet and the oxygen permeability of the polypropylene film (PCC) were determined in the same manner as in the Example 1 of the present application, respectively. As the result, the oxygen permeability of such a cracked comparative multilayer sheet was 50,000cm³ (STP)/m² • day • Mpa, and was almost the same as the oxygen permeability of the polypropylene film (PCC).

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application and any registration resulting therefrom.

Date: Dec. 18. 2009

Noboru Ohmori
Noboru Ohmori

United States Court of Appeals for the Federal Circuit

2008-1221
(Serial No. 09/772,278)

IN RE ROBERT SKVORECZ



Eugene Lieberstein, Baker & Hostetler LLP, of New York, New York, argued for appellant. With him on the brief was David A. Einhorn.

William LaMarca, Associate Solicitor, Office of the Solicitor, United States Patent and Trademark Office, of Arlington, Virginia, argued for the Director of the United States Patent and Trademark Office. With him on the brief was Benjamin D.M. Wood, Associate Solicitor.

Appealed from: United States Patent and Trademark Office
Board of Patent Appeals and Interferences

United States Court of Appeals for the Federal Circuit

2008-1221
(Serial No. 09/772,278)

IN RE ROBERT SKVORECZ

Appeal from the United States Patent and Trademark Office, Board of Patent Appeals and Interferences.

DECIDED: September 3, 2009

Before NEWMAN, FRIEDMAN, and MAYER Circuit Judges.

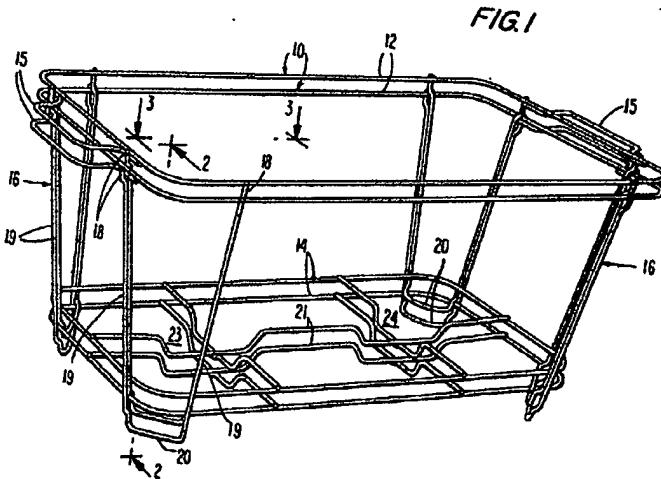
NEWMAN, Circuit Judge.

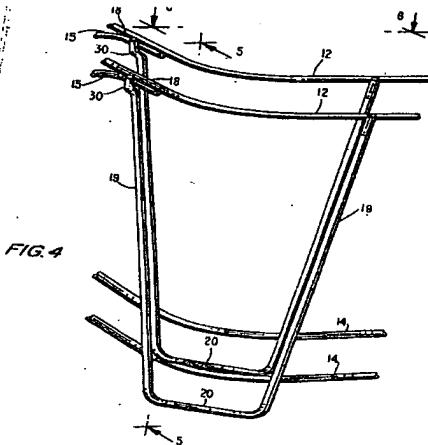
Robert J. Skvorecz appeals the decision of the United States Patent and Trademark Office (PTO) Board of Patent Appeals and Interferences (Board), rejecting claims 1-5 and 7 in his application to reissue United States Patent No. 5,996,948 (the '948 patent).¹ We reverse the rejection and remand for further proceedings.

¹ Ex Parte Skvorecz, No. 2006-1989 (B.P.A.I. March 28, 2007) (Decision); (B.P.A.I. Nov. 19, 2007) (denial of rehearing).

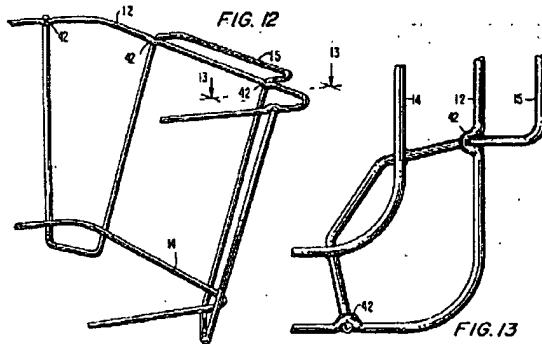
BACKGROUND

The Skvorecz invention is a wire chafing stand, such as is used for supporting a chafer (a device for maintaining hot food outside the kitchen). The specification explains that wire chafing stands are transported and stored nested together in multiple units, and that the nested stands tend to wedge into one another and are then difficult to separate. The invention is an improved structure whereby nested stands are readily separated. The specification describes the improved stand whereby the wire legs have an indent (also called an "offset") located adjacent to the upper ends of the legs, serving to laterally displace each leg relative to the point of attachment of the leg to the upper rim of the stand. The result is that the wire legs of one stand can nest within another stand, without significant wedging of the nested stands into each other. Patent Figure 1 shows two nested stands:





Mr. Skvorecz's patent application was filed on January 12, 1998 as a continuation-in-part, and after due examination, on August 12, 1999, the examiner issued a notice of allowability and examiner's amendment. On October 14, 1999 Mr. Skvorecz filed an amendment under 37 C.F.R. §1.312 to correct Figures 12 and 13 in the patent application, for which the PTO had prepared final drawings, as the rules provide. He explained: "The offsets 42 were drawn backwards by the Examiner in Figures 12 and 13 and therefore need to be corrected to properly conform to the specification so as to facilitate the nesting of one wire chafing stand into another." Mr. Skvorecz stated that "[t]he correction is necessary to conform the drawings to the description and claims," but that "this is an error limited only to the way the offsets 42 in the upper rim are shown facing the opposite direction" and does not affect the claims or require any changes in the specification. The '948 patent was issued on December 17, 1999 with Figures 12 and 13 unchanged, as follows:



On January 20, 2000, the examiner denied Mr. Skvorecz's request to correct the drawings, with the explanation: "Proposed new figure changes appear to include new matter not originally disclosed."

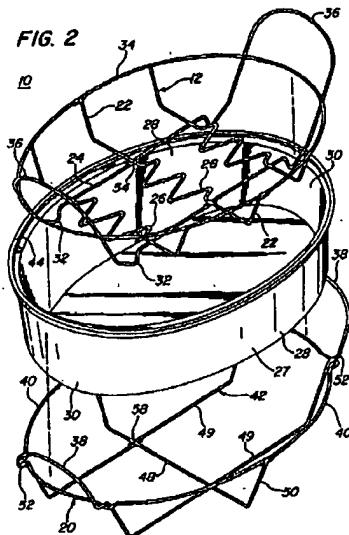
On March 15, 2001 Mr. Skvorecz filed reissue application 09/772,278, seeking reissuance of claims 1-7 of the '948 patent under 35 U.S.C. §251. Claim 1, the broadest claim in the reissue application, is as follows: (underlining indicate additions and brackets indicate deletions from original patent claim 1):

1. A wire chafing stand comprising a first [an upper] rim of wire steel which forms a closed geometrical configuration circumscribing a first surface area, [a lower rim of wire steel forming a closed geometrical configuration circumscribing a second surface area with said first surface area being larger than said second surface area] and having at least two [a plurality of] wire legs with each wire leg having two upright sections interconnected to one another [at a location below the lower rim] in a configuration forming a base support for the stand to rest upon with each upright section extending upwardly from said base support to from an angle equal to or greater than 90° with respect to a horizontal plane through said base support and being affixed to the first [upper] rim adjacent one end thereof [and to said lower rim at a relatively equal distance below the point of attachment to said upper rim] and further comprising a plurality of offsets located either in said upright sections of said wire legs or in said first [upper] rim for laterally displacing each wire leg relative to said first [upper] rim to facilitate the nesting of a multiplicity of stands into one another without significant wedging.

No changes were made in the specification or drawings. During the reissue examination, claim 6 was allowed and is not before us. The reissue examiner rejected claims 1-5 and 7

as being an improper recapture of surrendered subject matter; the Board reversed this rejection, which is not before us.

The reissue examiner also rejected claims 1, 2, and 5 for anticipation based on Figure 2 of United States Patent No. 5,503,062 (the Buff patent), shown below:



The Board sustained this anticipation rejection as to claims 1 and 2, but reversed it for claim 5, which reads as follows:

5. A wire chafing stand as defined in claim 1 wherein said plurality of offsets are welded to said wire legs at the separation of the upright sections into segments.

The Board also entered two new grounds of rejection, rejecting claim 5 for indefiniteness, and claims 1-5 and 7 for failing to comply with the written description requirement. The Board advised Mr. Skvorecz of his option, under 37 C.F.R. §41.50(b), either to request rehearing as to the new rejections or to reopen prosecution by the examiner. Mr. Skvorecz requested rehearing, and on rehearing the Board sustained its rejections. This appeal followed, as to the remaining grounds of rejection.

DISCUSSION

The PTO is governed by the Administrative Procedure Act (APA), and the rulings of its tribunals receive the APA standard of judicial review. Dickinson v. Zurko, 527 U.S. 150, 155 (1999) (applying the APA to the PTO). Thus on appeal we give plenary review to the Board's legal conclusions, and review its findings of fact to determine if they are arbitrary, capricious, or unsupported by substantial evidence. 5 U.S.C. §706(2). Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." Consolidated Edison Co. v. NLRB, 305 U.S. 197, 229 (1938).

Anticipation, 35 U.S.C. §102

A rejection for "anticipation" means that the invention is not new. Anticipation requires that all of the claim elements and their limitations are shown in a single prior art reference. See Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (anticipation requires that the identical invention is described in the reference); Glaverbel Societe Anonyme v. Northlake Mktg. & Supply, Inc., 45 F.3d 1550, 1554 (Fed. Cir. 1995) (same). Anticipation is a question of fact, and is reviewed accordingly. Glaverbel, 45 F.3d at 1554.

The Board found that the examiner established a prima facie case of anticipation based on the structural similarity between the Skvorecz invention and the Buff drawing, and that Mr. Skvorecz "failed to demonstrate that the functional characteristics of his claimed invention are not inherent in the structure disclosed by Buff." The Board stated that "[a]lthough the legs in Buff run along the long axis of the base rather than across the end of the long axis as disclosed by applicant, such is not precluded by claim language."

Mr. Skvorecz argues that his device is not the same as that of Buff, and that his claims require that each wire leg has a laterally displacing offset, while the Buff wire leg 48 does not have an offset that laterally displaces the leg from the rim. The Board agreed that "Buff's offset in the rim was not shown to be 'for laterally displacing each wire leg relative to said upper rim' as required by claim 1," but nonetheless maintained the rejection. On rehearing the Board stated that Buff's wire 48 is a "transverse member" and not a wire leg, and therefore that it need not have a displacing offset. Mr. Skvorecz states, and we agree, that Buff's wire 48 is a leg of the Buff structure. The Board's contrary statement is unsupported by any evidence.

The PTO now presses the theory that claim 1 is anticipated because it can be construed to include wire legs without offsets, because the claim uses the open-ended transition term "comprising."² The PTO argues that because the signal "comprising" is open-ended, not every wire leg is required by claim 1 to include offsets. The PTO states that the usage "comprising" permits the Skvorecz structure to include legs without offsets, although claim 1 states that "said wire legs" and "each wire leg" have offsets. Thus the PTO argues that even if claim 1 were construed to require that every wire leg has an offset, the Buff patent shows offsets 52 that laterally displace wire leg 49, apparently arguing that it is irrelevant whether Buff's wire leg 48 has an offset. Thus the Board held that claim 1, when given its broadest interpretation, reads on the Buff structure and thus is anticipated.

The PTO has not correctly construed the signal "comprising." This signal simply means that the device may contain elements in addition to those explicitly mentioned in the

² Because this aspect is a matter of law, it does not raise an issue of the Cheney doctrine, as stated in S.E.C. v. Chenery Corp., 318 U.S. 80, 87-88 (1943). See, e.g., Killip v. OPM, 991 F.2d 1564, 1568-69 (Fed. Cir. 1993).

claim. See CIAS, Inc. v. Alliance Gaming Corp., 504 F.3d 1356, 1360 (Fed. Cir. 2007) (“In the patent claim context the term ‘comprising’ is well understood to mean ‘including but not limited to.’”). The Board erred in holding that some wire legs of the Skvorecz device, as claimed, need not have an offset, when the claims state that each wire leg has an offset.

The protocol of giving claims their broadest reasonable interpretation during examination does not include giving claims a legally incorrect interpretation. This protocol is solely an examination expedient, not a rule of claim construction. Its purpose is to facilitate exploring the metes and bounds to which the applicant may be entitled, and thus to aid in sharpening and clarifying the claims during the application stage, when claims are readily changed. See In re Buszard, 504 F.3d 1364, 1366 (Fed. Cir. 2007); In re Cortright, 165 F.3d 1353, 1358 (Fed. Cir. 1999). As explained in the Manual of Patent Examining Procedure (MPEP) at §2111, entitled “Claim Interpretation; Broadest Reasonable Interpretation,” “Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified.”³ This practice may also be useful in reissue examination. See In re Sneed, 710 F.2d 1544, 1548 (Fed. Cir. 1983).

The signal “comprising” does not render a claim anticipated by a device that contains less (rather than more) than what is claimed. Here the examination expedient of “broadest reasonable interpretation” was incorrectly applied to interpret “comprising” to mean that not all the Skvorecz wire legs need have offsets, despite the claims that state

³ Although, the MPEP “does not have the force of law or the force of the rules of Title 37 of the Code of Federal Regulations,” MPEP Foreword (8th ed., rev. 7, Aug. 2008), it “is made available to the public and . . . describe[s] procedures on which the public can rely.” Patlex v. Mossinghoff, 758 F.2d 594, 606 (Fed. Cir. 1985).

that "each wire leg" has an offset. The Buff device does not have an offset located in each wire that serves as a leg to support the device. In the Buff structure both the transverse wire 48 and the longitudinal wire 49 provide the bottom support analogous to wire legs, and it is undisputed that wire segment 48 does not have an offset. Anticipation cannot be found, as a matter of law, if any claimed element or limitation is not present in the reference. The "anticipation" rejection is reversed.

Indefiniteness, §112 ¶2

35 U.S.C. §112 ¶2 states:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The MPEP at §2173.02 ("Clarity and Precision") states that the "focus during the examination of claims for compliance with the requirement for definiteness of 35 U.S.C. [§]112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available."

The MPEP states:

Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

Id. The reissue examiner had not rejected any claim on this ground, but the Board entered a new ground of rejection, rejecting claim 5 for indefiniteness. The PTO argues that the Board correctly determined that (1) the phrase "at the separation" in dependent claim 5 lacks antecedent basis in independent claim 1, rendering claim 5 indefinite; and (2) the

indefiniteness of “at the separation” renders the term “segments” indefinite, especially because “segments” is not defined in the specification.

Mr. Skvorecz points out that reissue claim 5 is identical to claim 5 as issued in the original patent, and that the terms now criticized by the Board were not deemed indefinite by any examiner. He states that the limitation added by claim 5, which states “with the plurality of offsets welded to said wire legs at the separation of the upright sections into segments,” was shown in the specification as originally filed, for the specification shows that the upright sections of the wire legs form segments, as illustrated at elements 18 and 19 in Figures 2 and 3. MPEP §2173.05(e), entitled “Lack of Antecedent Basis,” states: “There is no requirement that the words in the claim must match those used in the specification disclosure,” and “Obviously, . . . the failure to provide explicit antecedent basis for terms does not always render a claim indefinite.” MPEP §2173.02 states: “Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire.” We agree with Mr. Skvorecz that the clause “welded to said wire legs at the separation” does not require further antecedent basis in claim 1, for a person skilled in the field of the invention would understand the claim when viewed in the context of the specification.

With respect to the Board’s concern that “it is unclear what is being described by the term ‘segments,’” on rehearing the Board proposed that if claim 5 were to recite “a separation” instead of “the separation,” the definiteness requirement would be met. The Board explained:

We would agree with Applicant’s argument if claim 5 cited “welded to said wire legs to form a separation” (i.e., the separation does not yet exist). However, the claim recites “welded to said wire legs at the separation” and

the language "at the separation" indicates that the separation already exists prior to the welding. This contradicts Applicant's explanation.

Rehearing op. at 4. This helpful suggestion may be implemented on remand.⁴ Subject to this potential amendment, the rejection on the ground of indefiniteness is reversed.

Written Description, §112 ¶1

The written description requirement is set forth in 35 U.S.C. §112, ¶1:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

A purpose of the written description requirement is to provide the public with knowledge of the patented technology, thereby to advance the useful arts. The description of the invention provides the foundation for the scope and content of the claims, and serves to demonstrate that the applicant is in possession of the invention that is claimed. In fulfillment of these purposes, the applicant may employ "such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention."

Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572 (Fed. Cir. 1997). The form and presentation of the description can vary with the nature of the invention; compliance with the written description requirement is a fact-dependent inquiry. In re Alton, 76 F.3d 1168, 1172 (Fed. Cir. 1996).

The PTO argues that the claim element "a plurality of offsets located . . . in said first

⁴ The PTO Rules permit an applicant, after a decision of the Board involving a new ground of rejection, to request either further examination or rehearing. When rehearing has been requested, and the Board has on rehearing suggested helpful amendments, the applicant is reasonably entitled to implement the Board's suggestions.

“rim” is not described in the specification, and is described only in the proposed correction to Figures 12 and 13, which the examiner refused to enter. Mr. Skvorecz argues that Figures 12 and 13 indeed show the offsets in the first rim, pointing to the specification’s description of these figures as “offsets 42 are formed in the upper rim 14 of the chafing stand 10,” ’948 patent col.5 ll.18-19, “laterally displacing each leg.” The specification states that Figure 12 is “still another alternative embodiment of the present invention” and Figure 13 is a top view of Figure 12. ’948 patent col.3 ll.13-16. Mr. Skvorecz states that his unsuccessful request to change Figures 12 and 13 was not new matter but merely to correct an immaterial feature of offset orientation.

Figures 12 and 13 do show such offsets in the rim. However, the PTO argues that Figures 12 and 13 are partial figures, and do not show every leg’s offsets and their displacement. However, the full structure is shown in other drawings of the various embodiments, in full structure (such as Figures 1 and 7) and partial structure (such as Figures 10 and 11). See In re Wright, 866 F.2d 422, 426 (Fed. Cir. 1989) (the specification as a whole must be considered). A skilled artisan would readily understand Figures 12 and 13 as partial structures showing detail of the offsets. “An applicant’s disclosure obligation varies according to the art to which the invention pertains.” In re Hayes Microcomputer Products, Inc. Patent Litig., 982 F.2d 1527, 1534 (Fed. Cir. 1992). A person skilled in the mechanical arts would understand the specification including the drawings as showing the offsets and the lateral displacement of each wire leg. The Board’s finding that the written description requirement is not met is unsupported by substantial evidence, and is reversed.

CONCLUSION

The rejections on grounds of §§102 and 112 are reversed. The case is remanded for further proceedings.

REVERSED AND REMANDED